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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/03/2001

Zulfiquar Sayeed

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7590

07/30/2004

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EXAMINER

WANG, TED M

ART UNIT

PAPER NUMBER

2634

6

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/826,399

Applicant(s)

SAYEED, ZULFIQUAR

Examiner

Ted M Wang

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/3/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-17 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, and 9 is/are rejected.
- 7) ☒ Claim(s) 5, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Claims 1-17 are pending in the application.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tsumura (US6,044,253).

- In regard claim 1, Tsumura discloses a method using first and second variable gain control circuits with monitoring a gain adjustment of an RF amplifier in said communication receiver (Fig.1 element 101, column 2 line 66 – column 3 line 13, and column 4 lines 35-45); and adjusting said IF gain value by an amount approximately opposite to said RF gain value (Fig.2, elements S300-S307, column 2 lines 19-34, and column 4 line 35 – column 5 line 37).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumura (US6,044,253) in view of Okamoto (US6,614,855).

- In regard claim 2, Tsumura discloses all of the limitation as described in the above paragraph except specifically teaching that communication receiver is an OFDM communication receiver.

Okamoto discloses a receiver for receiving broadcasting signals with an OFDM communication receiver (Fig.2 elements 11-11, 17-20, 29, and 32) that has the same structure as that of Tsumura disclosed in order to receive the specific satellite broadcast information, especially, in OFDM format.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsumura's receiver in view of Okamoto's disclosure in order to receive the specific satellite broadcast information, especially, in OFDM format.

- In regard claim 4, the limitation of adjusting said IF gain value based on at least one signal energy measurement performed before (or after) a fast Fourier transform (FFT) stage in said receiver in order to maintain a desired set point can further be taught by Okamoto in Fig.2 element SSG and column 6 lines 40-57.
- In regard claim 6, the limitation that signal energy measurement is performed before said FFT stage and wherein said method further comprises the step of

adjusting said IF gain value in stepped increments if a difference between said signal energy measurement and a corresponding pre-FFT threshold are within a predefined tolerance can further be taught by Tsumura in Fig.2 elements S303-S306 and Fig.4 elements S303 and S401-S401, and column 4 line 46 – column 6 line 11.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumura (US6,044,253) in view of Marchok et al. (US5,790,514).

- In regard claim 3, Tsumura discloses all of the limitation as described in the above paragraph except specifically teaching that communication receiver is a DMT communication receiver.

Marchok et al. discloses a receiver for receiving broadcasting signals with an OFDM communication receiver (Fig.7 elements 150-205) that has the same structure as that of Tsumura disclosed in order to receive the specific satellite broadcast information, especially, in DMT format.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsumura's receiver in view of Marchok's disclosure in order to receive the specific satellite broadcast information, especially, in DMT format.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumura (US6,044,253) in view of Okamoto (US6,614,855) and further in view of Greenwood (US6,552,626).

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- In regard claim 9, Tsumura and Okamoto disclose all of the limitation as described in the above paragraph except specifically teaching that a threshold for said signal energy measurement is established to prevent clipping.

Greenwood discloses an OFDM communication system with a method that a threshold for said signal energy measurement is established to prevent clipping (column 3 lines 1-20 and claims 1, 2, and 4) in order to prevent corruption of the data in the waveform upon detections.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsumura's and Okamoto's modified OFDM communication system method with AGC in view of Greenwood's disclosure in order to prevent corruption of the data in the waveform upon detections.

#### ***Allowable Subject Matter***

8. Claims 5, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 10-17 are allowed.

#### ***Conclusion***

10. Reference US6594320, US5,194,822 and US5,416,798 are cited because they are put pertinent to the communication receiver with RF and IF AGC and OFDM carrier acquisition. However, none of references teach detailed connection as recited in claim.

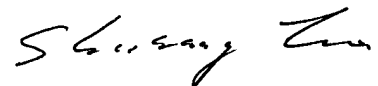
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M Wang whose telephone number is (703) 305-0373. The examiner can normally be reached on 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Ted M Wang  
Examiner  
Art Unit 2634

Ted M. Wang



**SHUWANG LIU**  
**PRIMARY EXAMINER**